Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims

in the application:

Listing of Claims:

Claim 1. (Currently Amended) A reactor system for reacting a

hydrocarbon or hydrocarbon derivative charging material, comprising:

a catalyst-coated reaction chamber having a reaction chamber inlet

for feeding accommodating a flow of a reaction educt stream into said reaction

chamber; and

an electric heater arrangement formed by a catalyst coated,

reaction educt stream permeable electrical heater, through which [[the]] educts

for reacting the charging material can be fed at least in a start operating phase

of the reactor system;

wherein, said heater arrangement comprises a plurality of

physically separated, individual heating elements which are disposed at

respective reaction chamber inlet openings upstream of said reaction chamber,

each of said heating elements being formed by a catalyst coated reaction, educt

Page 2 of 8

Serial No. 09/664,539

Amendment Dated: December 20, 2004

Reply to Office Action Mailed September 20, 2004

Attorney Docket No. 225/49232

stream permeable material and at least partially covering one of said inlet

openings, said heating elements accommodating a discrete point-by-point

injection of heated reaction educt material into the reaction chamber.

the electric heater is flat and is disposed on a level with the reaction

chamber inlet;

the electric heater at least partially covers a cross section of the

reaction chamber inlet.

Claim 2. (Original) The reactor system, as claimed in Claim 1,

wherein the heater has a plurality of heating elements, which together cover the

cross section of the reaction chamber inlet, at least partially.

Claim 3. (Original) The reactor system, as claimed in Claim 1,

wherein the heater has a heating disk, which completely covers the inlet cross

section of the reaction chamber.

Claim 4. (Original) A reactor system for reacting a hydrocarbon or

hydrocarbon derivative charging material, comprising:

Page 3 of 8

Serial No. 09/664,539

Amendment Dated: December 20, 2004

Reply to Office Action Mailed September 20, 2004

Attorney Docket No. 225/49232

a catalyst-coated reaction chamber having a reaction chamber inlet

for feeding a reaction educt stream into said reaction chamber; and

an electric heater located in front of the reaction chamber inlet for

heating at least one reaction educt in a start operating phase;

wherein the electrical heater includes means for point-by-point

injection of at least one reaction educt, heated in the heater, into the reaction

chamber at at least one place within the reaction chamber inlet cross section.

Claim 5. (Original) The reactor system, as claimed in Claim 1,

wherein the reactor system comprises a switchable reaction educt feed system

with feed means which feed the reaction educt stream in a start operating mode

into the reaction chamber only over one part of the inlet cross section and in a

normal operating mode into the reaction chamber over the entire inlet cross

section.

Claim 6. (Original) The reactor system, as claimed in Claim 4,

wherein the reactor system comprises a switchable reaction educt feed system

with feed means which feed the reaction educt stream in a start operating mode

into the reaction chamber only over one part of the inlet cross section and in a

Page 4 of 8

Serial No. 09/664,539 Amendment Dated: December 20, 2004 Reply to Office Action Mailed September 20, 2004 Attorney Docket No. 225/49232

normal operating mode into the reaction chamber over the entire inlet cross section.